

Appendix C

**Summary of Bel Marin Keys Flood Easements,
Marin County Flood Ordinances
and Supporting Information**

Summary of BMKV Flood Easements and Marin County Flood Zoning Ordinances and Zoning Code

Summarized below are the following:

Precise Limits of F-1 Floodway District for Novato Creek (Spring 1971)
Ultimate Flood Control Channel Improvement Map (Spring 1971)
Marin County Ordinance No. 2001 (Adopted May 22, 1973)
Letter and Agreement Regarding the Maintenance of Pacheco Pond (February 28, 1980, March 4, 1980)
BMK Unit V Drainage Agreement No. 1 (May 12, 1980)
BMK Unit V Drainage Agreement No. 2 (June 10, 1986)
Agreement For Dredging Spoils Disposal Site on BMK Unit V (June 10th 1986)
Agreement for Dredging Spoils Disposal Site (October 12, 1995)
Amendment to Agreement for Dredging Spoils Disposal Site (Feb. 21 1997)
Second Amendment to Agreement for Dredging Spoils Disposal Site (Dec. 9, 1998)
Easement for Emergency Spillway and for Discharging Water (Jan. 7, 1997)
Marin County Zoning Map (1996)
Marin County Code Chapter 22.94 (F-1 Zone)
Marin County Code Chapter 22.95 (F-2 Zone)

Precise Limits of F-1 Floodway District for Novato Creek (Spring 1971)

Series of 14 maps depicting the F-1 designation. F-1 designation includes the adjacent flood plain of Novato Creek. The northern portion of the levee adjacent to Novato Creek is designated F-1 including approximately 8 acres of BMKV. Limits of F-1 are shown on Figure 4-3.

Ultimate Flood Control Channel Improvement Map (Spring 1971)

Lower Novato Creek (i.e. from Highway 101 to San Pablo Bay) is separated into 4 segments. For each portion, dimensions of the ultimate channel are provided in a cross sectional illustration of Novato Creek. Proceeding downstream the ultimate channel width increases while the levee height decreases.

Novato Creek Ultimate Channel Highway 101 to San Pablo Bay					
Segment	Location	Length (approx.)	Top Channel	Bottom channel	Other
A-A	Just South of Highway 101	300 feet	200 feet wide +13' MSL levee	60 feet wide -6 MSL bottom	Bank slope 3:1
B-B	101 to Pacheco Pond Outlet	14,000 feet	350 feet wide +12' MSL levee	100 feet wide -6 MSL bottom	Bank slope 6:1

C-C	Pacheco Pond Outlet to near BMK lock	8,000 feet	400 feet wide +9/10.5' MSL levee	160 feet wide -8 MSL bottom	Bank slope 6:1
D-D	BMK lock to mouth	7,000 feet	400 feet wide +10' MSL levee	160 feet wide -8 MSL bottom	Bank slope 6:1

Letter and Agreement Regarding the Maintenance of Pacheco Pond (February 28, 1980, and March 4, 1980)

Flood District and Department of Fish and Game agreed to maintain Pacheco Pond for flood protection and wildlife enhancement. Department of Fish and Game requires Flood District to install facilities at Pacheco Pond capable of maintaining a water surface level of 1.5 feet M.S.L.

Marin County Ordinance No. 2001 (Adopted May 22, 1973)

Activities that would reduce the ponding capacity of parcels that are zoned as F-2 by 25% are not allowed.

BMK Unit V Drainage Agreement No. 1 (May 12, 1980)

Flood Control District permitted filling, grading, and development of a 100-acre area (Bel Marin Keys Unit IV) (referred to as Area I in agreement; southwest portion of present-day BMK residential area) provided a 300-acre area on BMKV maintained for ponding capacity. Owner of BMKV can not fill or otherwise prevent flood water ponding on 300 acres area (Area II in agreement; Area 1 on Figure 4-3). Owner can not utilize the 300-acre area and cause additional flooding to other properties in the vicinity. Provisions of agreement remain in full force until Novato Creek ultimate channel improvements or equivalent occur.

BMK Unit V Drainage Agreement No. 2 (June 10, 1986)

Allowed owner of BMKV to fill area (by placement of dredge spoil) on northeast corner of BMKV (referred to as Area I in agreement; Area 2 on Figure 4-3). Agreement required maintenance of 70.2-acre area (referred to as Area II in agreement; Area 3 on Figure 4-3) for ponding. Other areas can substitute for designated ponding area if:

- replacement ponding area has a ponding volume as great or greater than that of designated area;
- substitution ponding area won't flood other property in the area; and
- the District agrees; or if
- Owner removes all or part of fill from dredge spoil areas to another location, therefore releasing the obligation to retain 70.2 acre-area for flood water ponding; and

- Owner provides engineered plan that is satisfactory to District

Provision of agreement remains in force until Novato Creek ultimate channel improvements occur, or All government agencies have issued permits for the development of parcels adjacent to the dredge spoil area and the 70.2 acre ponding area.

Agreement for Dredging Spoils Disposal Site on BMK Unit V (June 10th 1986)

The Bel Marin Keys Community Services District may deposit spoils from Novato Creek at the dredge spoils site (Area 2 on Figure 4-3).

Agreement for Dredging Spoils Disposal Site (October 12, 1995)

California Quartet agreed to allow BMK CSD to deposit dredge spoils in dredge spoil disposal site. Replaced 1986 agreement. Appears to be same as prior site. Expiration date of June 1, 1997.

Amendment to Agreement for Dredging Spoils Disposal Site (Feb. 21, 1997)

Extended expiration date to June 21, 1998.

Second Amendment to Agreement for Dredging Spoils Disposal Site (Dec. 9, 1998)

Extended expiration date to January 1, 2001.

Easement for Construction and Maintenance of an Emergency Spillway and for Discharging Water (Jan. 7, 1997)

California Quartet granted BMK CSD the “right to construct, maintain, and repair an emergency spillway on the existing levee”, the purpose of which “is to relieve high water in the lagoon surrounding units 3 and 4 of the Bel Marin Keys subdivision” and also grants “the right to discharge water” onto a 3.034 acre portion of parcel 157-172-07 from the lagoon. Water from the lagoon shall only be discharged onto the subject parcel when the lagoon and Novato Creek reach a level of 1.5 NGVD. Spillway location shown as area 4 on Figure 4-3. Easement provides for removal of easement if “other project” includes “flood control measures, such as levees of sufficient height and/or other measures, to contain the high water in the lagoons surrounding units 3 and 4 of the Bel Marin Keys Subdivision”.

Marin County Flood Zoning Map (1996)

The project area, excluding the State Lands parcel, is zone as F-2. The State Lands parcel is part of the City of Novato. F-1 zone located along Novato Creek includes approximately 8 acres of BMKV property north of Novato Creek levee. Rest of site is in F-2 zone. Flood zoning is shown on Figure 4-3 for site and Figure 4-4 for lower Novato Creek watershed.

Marin County Code Chapter 22.94 (F-1 Zone)

Purpose is to insure life and property will be protected and to prevent increased flooding caused by random and uncontrolled development. F-1 applies to primary floodway zone, which is defined as waterway and adjoining floodplain

Prohibited Uses:

- No buildings or structures
- No dredging, filling or dike construction if intended to increase water level or impede flow of F-1 zone

Permitted Uses:

- Uses existing at the time of F-1 adoption will be permitted and treated as nonconforming use according to Marin County Code Chapter 22.78
- One floating boat dock allowed per parcel within the F-1 zone

Marin County Code Chapter 22.95 (F-2 Zone)

F-2 classification applies to secondary floodway zone

Restrictions:

- No buildings, leveeing, diking, filling or activity that will reduce the ponding area and capacity shall be constructed in an F-2 area, excepted in a specified encroachment area or up to a give percentage of each parcel. The specified encroachment area and percentage of ponding capacity is designated when the F-2 district has been adopted for a specific area.
- Before activities that effect the specified encroachment area or the percentage of ponding capacity are implemented, the landowner, the county, the Marin County Flood Control and Water Conservation District (District) and other appropriate public agencies must agree to the following provisions:
 - that remaining area or percentage of the parcel is subject to ponding and overflow;
 - F-1 lands included on the property will be dedicated to the county, the District, or other public agency;
 - Drainage improvements will be constructed by the landowner to enable the remaining percentage or area to serve as ponding and overflow; and

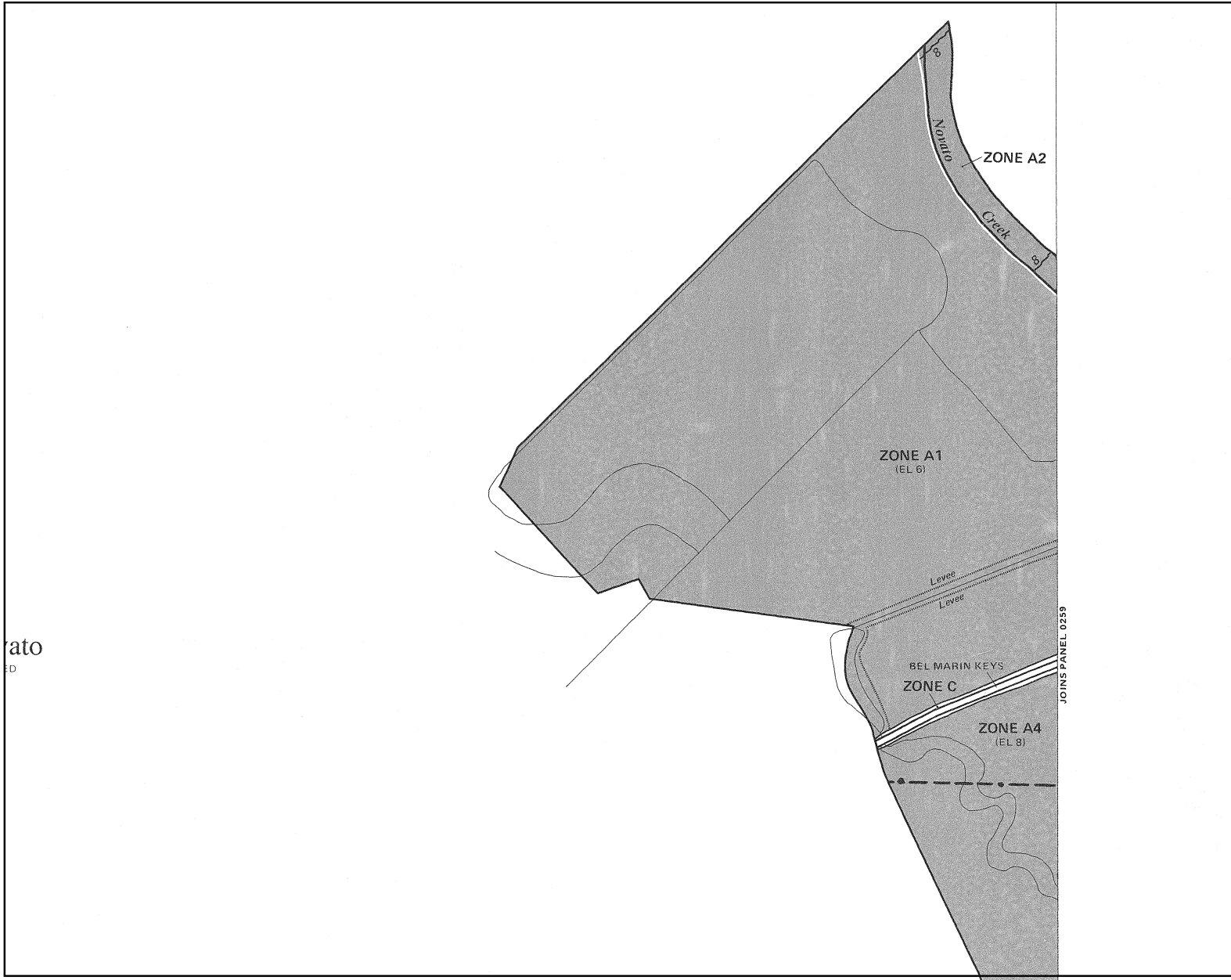
- Other requirements needed to fulfill Marin County Code 22.94 and 22.95

Full use of the entire remaining area if ultimate flood control improvements are constructed through the parcel and the ultimate flood control channel section is constructed from the said parcel downstream

The county may permit alternative methods of flood control, which are equal to ultimate flood control channel improvements, instead of the ultimate improvements. All alternative methods are subject to the review and approval of the District or other appropriate agencies.

FEMA FLOOD INSURANCE MAPS (FIRMs) RELATIVE TO PROJECT AREA

1. Federal Emergency Management Agency (FEMA) 1982, Flood Insurance Rate Maps (FIRM), Marin County, California, Unincorporated Areas, Community Panel 060173 0258A, Effective Date March 1, 1982.
2. Federal Emergency Management Agency (FEMA) 1982, Flood Insurance Rate Maps (FIRM), Marin County, California, Unincorporated Areas, Community Panel 060173 0259A, Effective Date March 1, 1982.
3. Federal Emergency Management Agency (FEMA) 1982, Flood Insurance Rate Maps (FIRM), Marin County, California, Unincorporated Areas, Community Panel 060173 0300A, Effective Date March 1, 1982.



APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

**MARIN COUNTY,
CALIFORNIA**
(UNINCORPORATED AREAS)

PANEL 258 OF 525
(SEE MAP INDEX FOR PANELS NOT PRINTED)

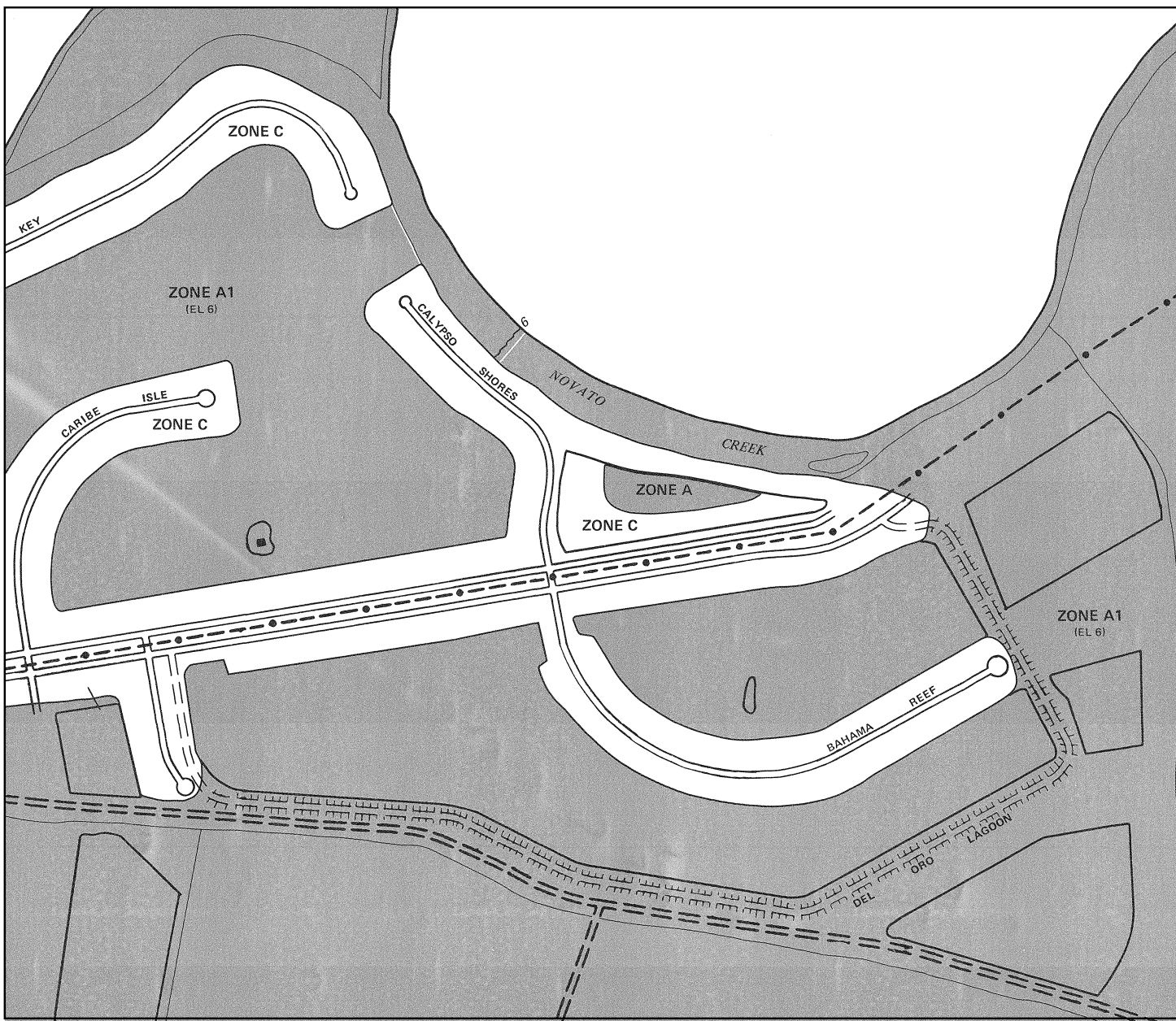
COMMUNITY-PANEL NUMBER
060173 0258 A

EFFECTIVE DATE:
MARCH 1, 1982



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



JOINS PANEL 0300



APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

**MARIN COUNTY,
CALIFORNIA**
(UNINCORPORATED AREAS)

PANEL 259 OF 525
(SEE MAP INDEX FOR PANELS NOT PRINTED)

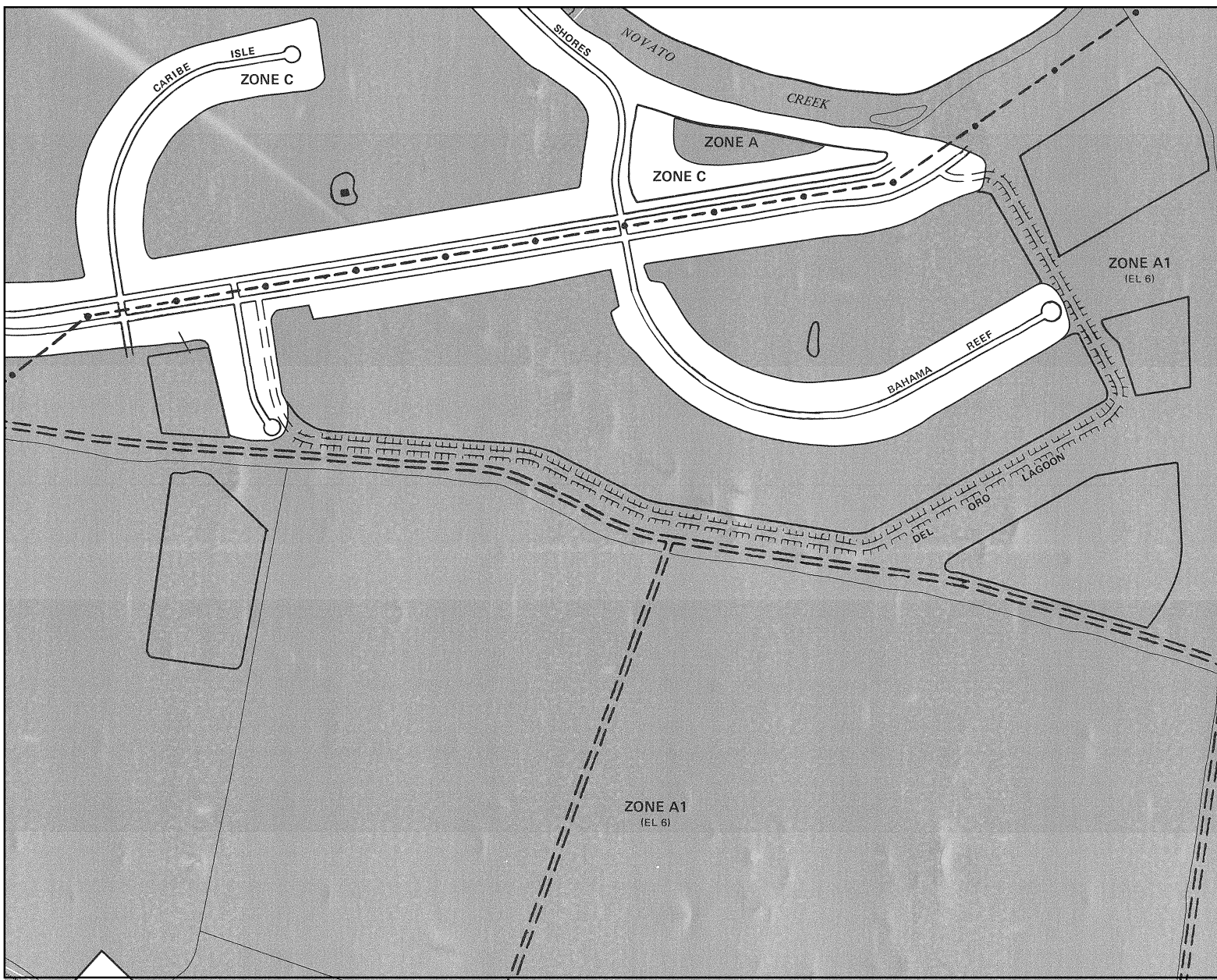
COMMUNITY-PANEL NUMBER
060173 0259 A

EFFECTIVE DATE:
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APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

**MARIN COUNTY,
CALIFORNIA**
(UNINCORPORATED AREAS)

PANEL 259 OF 525
(SEE MAP INDEX FOR PANELS NOT PRINTED)

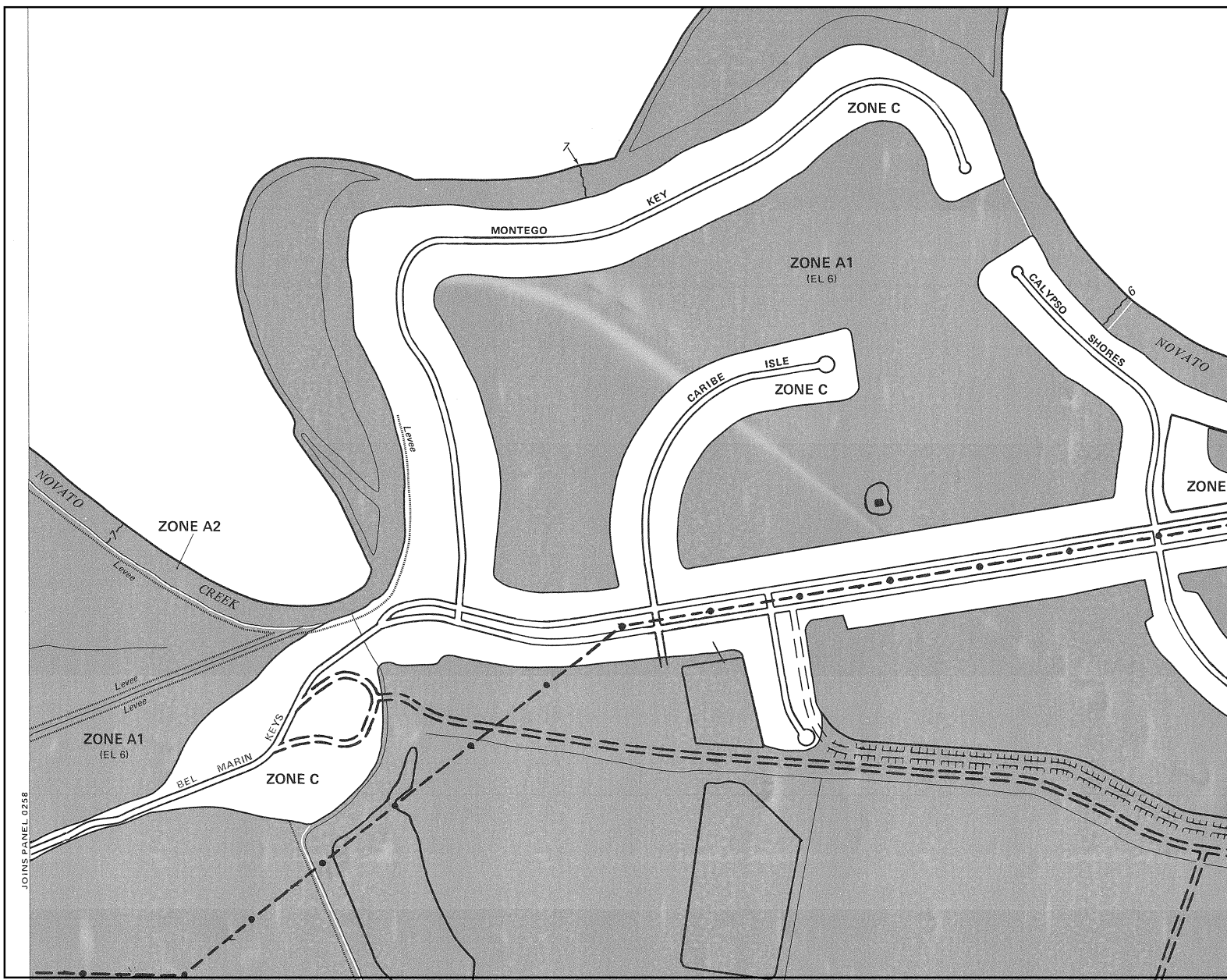
COMMUNITY-PANEL NUMBER
060173 0259 A

EFFECTIVE DATE:
MARCH 1, 1982



Federal Emergency Management Agency

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JOINS PANEL 0258



APPROXIMATE SCALE
500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

**MARIN COUNTY,
CALIFORNIA**
(UNINCORPORATED AREAS)

PANEL 259 OF 525
(SEE MAP INDEX FOR PANELS NOT PRINTED)

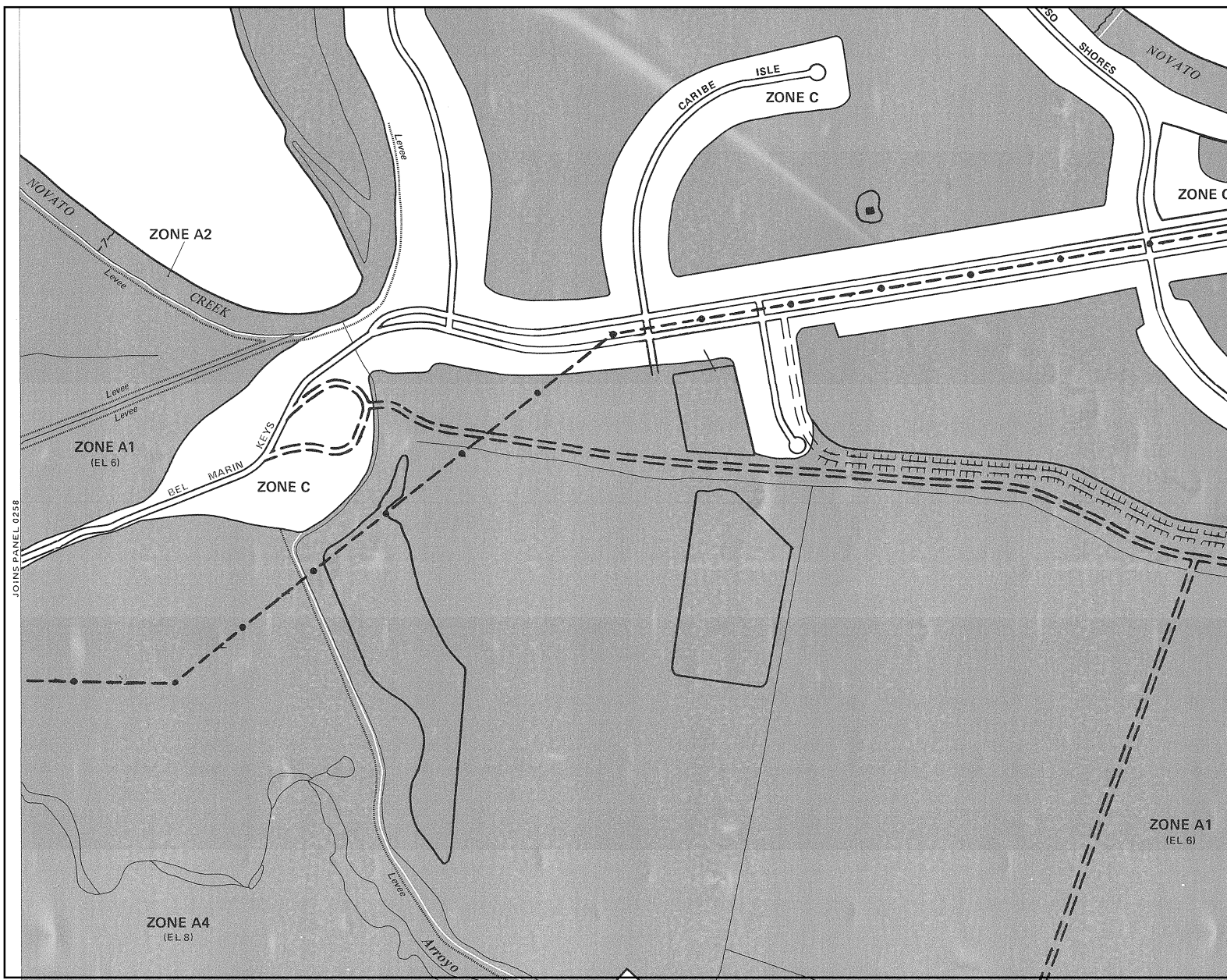
COMMUNITY-PANEL NUMBER
060173 0259 A

EFFECTIVE DATE:
MARCH 1, 1982



Federal Emergency Management Agency

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JOINS PANEL 0258



APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

**MARIN COUNTY,
CALIFORNIA**
(UNINCORPORATED AREAS)

PANEL 259 OF 525
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
060173 0259 A

EFFECTIVE DATE:
MARCH 1, 1982



Federal Emergency Management Agency

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JOINS PANEL 0257

SEE PANEL 0276

City of Novato
AREA NOT
INCLUDED

NOVATO CREEK

JOINS PANEL 0259

ZONE A1
(EL 6)

Road on Levee

SONOMA CO
MARIN CO

Beacon

ZONE V1
(EL 6)



APPROXIMATE SCALE

2000 0 2000 FE

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

**MARIN COUNTY,
CALIFORNIA**
(UNINCORPORATED AREAS)

PANEL 300 OF 525
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
060173 0300 A

EFFECTIVE DATE:
MAY 3, 1982



Federal Emergency Management Agency

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